

AMENDED CLAIMS

1. An at least partially blocked composition comprising isocyanates, characterized in that it is
5 blocked by at least two different blocking agents, one of the blocking agents reacting with the isocyanate functional group via an OH group and the other reacting with the isocyanate functional group via an NH group or the two blocking agents reacting with the isocyanate
10 functional group via an OH group, the two blocking agents having a deblocking temperature of between 80 and 200°C in the octanol test and being selected so that, in the octanol test at 110°C, the ratio

percentage in equivalents of blocking agent which deblocks first at 110°C

D=

percentage in equivalents of blocking agent which deblocks last at 110°C

15 is greater than $4/3$, advantageously greater than 1.5, preferably greater than 2, with the proviso that, when a blocking agent comprises a phenol functional group as blocking functional group, it does not comprise a COOH
20 functional group and that, when the polyisocyanate composition comprises more than two blocking groups and one of the agents represents a five-membered nitrogenous heterocycle, the composition comprises more than 30 equivalent % of blocking agents reacting with
25 the isocyanate functional group via the OH functional group.

2. Composition comprising isocyanates according to any one of the preceding claims, characterized in that the ratio of the blocking groups is between 10/90 and
30 90/10, advantageously 20/80 and 80/20.

3. Composition comprising isocyanates according to any one of the preceding claims, characterized in that one of the blocking agents is a substituted or unsubstituted (poly)nitrogenous heterocyclic compound.

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4. Composition comprising isocyanates according to claim 3, characterized in that the (poly)nitrogenous heterocyclic compound is selected from substituted or unsubstituted pyrazole, triazole and pyridine.

5. Composition comprising isocyanates according to claim 7, characterized in that the (poly)nitrogenous heterocyclic compound is substituted or unsubstituted triazole.

6. Composition comprising isocyanates according to any one of claims 1 to 5, characterized in that one of the two blocking agents is an oxime.

7. Composition according to claim 6, characterized in that the oxime is selected from methyl ethyl ketoxime, acetone oxime, methyl amyl ketoxime, the oxime of methyl pyruvate and the oxime of ethyl pyruvate.

8. Composition according to claim 1, characterized in that the blocking agents are selected from the pairs:

- triazole/methyl ethyl ketoxime,
- triazole/oxime of ethyl pyruvate,
- dimethylpyrazole/methyl amyl ketoxime,
- hydroxypyridine/methyl amyl ketoxime, and
- dimethylpyrazole/hydroxypyridine.

9. Composition according to any one of the preceding claims comprising a mixture of compounds carrying blocked isocyanate functional group(s), characterized in that said mixture exhibits a mean functionality (number of blocked or nonblocked isocyanate functional groups per molecule comprising them) of greater than 2, advantageously at least equal to 2.1, and at most equal to approximately 5, advantageously to 4.

10. Composition according to any one of claims 1 to 9, characterized in that said mixture exhibits a mean functionality (number of blocked or nonblocked isocyanate functional group per molecule comprising them) at least equal to 2.4.

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11. Composition according to any one of claims 1 to 10, characterized in that said mixture exhibits a mean functionality (number of blocked or nonblocked isocyanate functional group per molecule comprising them) at most equal to 3.7.

12. Composition according to any one of claims 1 to 11, in which the mixture of the compounds carrying isocyanate functional groups fulfills at least one, advantageously at least two, preferably at least three, of the following conditions:

- at least one third, advantageously two thirds, preferably four fifth, of the free or blocked NCO functional groups are connected to a hydrocarbonaceous backbone via a saturated (sp^3) carbon;

- at least one third, advantageously two thirds, preferably four fifth, of said saturated (sp^3) carbons carry at least one, advantageously two, hydrogen(s);

- at least a third, advantageously at least a half, preferably at least two thirds, of said saturated (sp^3) carbons are connected to said backbone via a carbon atom itself carrying at least one hydrogen, advantageously two.

13. Composition according to any one of claims 1 to 12 for the preparation of a coating, characterized in that it additionally comprises, for successive or simultaneous addition, a coreactant comprising a reactive hydrogen.

14. Use of the compositions according to any one of claims 1 to 13 for the preparation of a coating, in particular a paint.

15. Process for the preparation of a composition according to any one of the preceding claims, characterized in that a (poly)isocyanate composition is reacted, successively or simultaneously, with the blocking agents as defined in one of claims 1 to 8.

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16. Process for the preparation of polymers, characterized in that it comprises the following stages:

5 - bringing together a blocked polyisocyanate as defined in any one of claims 1 to 13 and a coreactant which comprises derivatives exhibiting reactive hydrogens;

and

10 - heating the reaction mixture thus formed to a temperature which makes possible crosslinking of the components.

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ADD
A₁

ADD
C₃